

CLAIMS

1. Audio and video data processing device (D1) for multimedia communication (L3-1, L3-2), via an asynchronous network (N) with random transmission times, between, on the one hand, a first pair consisting of a first audio communication terminal (TM1) and a first video communication terminal (PC1), and on the other hand, a second pair consisting of a second audio communication terminal (TM2) and a second video communication terminal (PC2), the said terminals (TM_i, PC_i) being all of the LAN type, where at least the first pair (TM1, PC1) consists of independent and asynchronous terminals, characterized in that it includes, in association with this first pair, connection means (ML1) for the setting up of:

- a video link (L2) between these connection means (ML1) and the video terminal (PC1) of the first pair,
- an audio link (L1) between these connection means (ML1) and the audio terminal (TM1) of the first pair,
- a video link (L3-2) between these connection means (ML1) and the second pair (TM2, PC2),
- an audio link (L3-1) between these connection means (ML1) and the second pair (TM2, PC2).

2. Device according to claim 1, characterized in that the said connection means (ML1) include:

- first* dating means (MD1) arranged, on the one hand, to attach a transmit time mark and an identifier to audio and video data, coming from the first audio (TM1) and video (PC1) communication terminal respectively, before their transmission to the second pair via the said local network, and on the other hand, to attach a receive time mark to the audio and video data coming from the said second pair and containing an identifier and a transmit time mark, and
- their own processing means (MT1) to determine a time difference (ET) representing the transmission time difference between the received audio and video data and presenting the same identifier, from their respective

5 transmit and receive time marks, and to delay, by a value representing the said time difference (ET), the transmission of the said received audio data at the said first audio communication terminal (TM1) in relation to the transmission of the said received video data at the said first video communication terminal (PC1).

10 3. Device according to claim 2, characterized in that the said processing means (MT1) are arranged so as to determine a time difference (ET) representing the said transmission time difference and a coding and decoding time difference between the received audio and video data and presenting the same identifier.

15 4. Device according to claim 2, characterized in that the said processing means (MT1) are arranged so as to determine the said time difference (ET) from the transmit and receive time markings of the said received audio and video data, and from values representing their respective transmission times between the second audio (TM2) and video (PC2) communication terminals of the second pair which transmitted them, and other connection means (ML2) associated with the second pair.

20 5. Device according to claim 4, characterized in that the said links between the second audio (TM2) and video (PC2) communication terminals and the other connection means (ML2) associated with the second pair are of the "deterministic" type.

25 6. Device according to claim 2, characterized in that the said processing means (MT1) are arranged so as to determine the said time difference (ET) from the transmit and receive time markings of the said received audio and video data, and from values representing their respective transmission times between the said connection means (ML1) and the first audio (TM1) and video (PC1) communication terminals for which they are intended.

30 7. Device according to claim 6, characterized in that the said links between the said connection means (ML1) and the first audio (TM1) and video (PC1) communication terminals are of the "deterministic" type.

8. Device according to claim 2, characterized in that the said dating means (MD1) are also arranged so as to attach data, representing a priority level, to the said audio data and video data to be transmitted to the other

connection means (ML2).

9. Device according to claim 9, characterized in that the said priority level associated with the said video data is lower than the said priority level associated with the said audio data.

5 10. Device according to claim 1, characterized in that the said connection means (ML1) provide a function of the proxy type for the said audio data and video data.

11. Audio communication terminal of the LAN type (TMi), characterized in that it includes a processing device (Di) according to one of the previous
10 claims.

12. Video communication terminal of the LAN type (PCi), characterized in that it includes a processing device (Di) according to one of the previous claims.

13. Communication unit (Bi), characterized in that it includes a processing
15 device (Di) according to one of the previous claims.